PUBLIC VERSION

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
The Library of Congress
Washington, D.C.

In re

DETERMINATION OF RATES AND TERMS FOR MAKING AND DISTRIBUTING PHONORECORDS (Phonorecords III)

Docket No. 16-CRB-0003-PR (2018-2022) (Remand)

WRITTEN SUPPLEMENTAL REMAND TESTIMONY OF MICHAEL L. KATZ

(On behalf of Pandora Media, LLC)

Submitted January 24, 2022

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I. INTRODUCTION AND SUMMARY OF CONCLUSIONS

1. My name is Michael L. Katz. I have provided a detailed description of my qualifications, as well as copy of my curriculum vitae, earlier in this proceeding.[1]

2. In my present testimony, I assess whether, from the perspective of economics, the "Working Proposal"—the methodology described in the December 9, 2021, Notice and *Sua Sponte* Order Directing the Parties to Provide Additional Materials (*December 9 Order*)—is capable of determining a royalty rate structure that would promote the four Section 801(b)(1) statutory objectives. For the reasons described below, I conclude that, in its present form, it is not. I also address certain questions posed by the Judges in the January 6, 2022, Order Granting in Part and Denying in Part Copyright Owners' Motion for Reconsideration or, in the Alternative, Clarification (*January 6 Order*).

3. Drawing on my training and experience as an economist, my examination of the public records of earlier proceedings, my analysis of the relevant industries, and my examination of the evidence produced in the present proceeding—including the written and oral testimony of Copyright Owners' economic experts—I continue to reach all of the conclusions reached in my earlier written direct, rebuttal, supplemental rebuttal, and direct remand testimony.[2] I also reach the following additional conclusions:

- *The Working Proposal is based on the invalid assumption that any increase in the royalty rate paid by the Services to musical works copyright owners will be entirely offset by a corresponding decrease in the royalty rate paid by the Services to sound recording copyright owners.* In other words, the Working Proposal is built on the assumption of a 100-percent "see-saw effect" between musical works royalties and sound recording royalties. This assumption has no basis in sound economic theory and no support in the factual record. Indeed, the factual evidence suggests that the see-saw rate is [redacted]. In addition, because most or all of the sound recording royalty rates for the *Phonorecords III* rate period [redacted]

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[1] Written Direct Testimony of Michael L. Katz, November 1, 2016 (hereinafter *Katz WDT*) and Tab 1, Curriculum Vitae of Michael L. Katz.

[2] A list of the additional materials on which I rely in my current testimony is provided in Appendix A.

[redacted]. I am unaware of any evidence the companies would do so.

- *The fact that the see-saw rate is less than 100 percent means that the Judges can influence the total royalty rate.* Given that the see-saw rate is well below 100 percent, if the Judges raise the musical works royalty, the sound recording royalty rate will not fall anywhere near enough to prevent the total royalty rate paid by the Services to sound recording and musical works copyright owners from rising. Similarly, if the Judges lower the musical works royalty rate, the total royalty rate will fall. In other words, the Judges' choice of musical works royalty rate will have strong effects on the income and returns earned by the Services.

- *Unless substantially modified, the Working Proposal cannot determine a rate that is "effectively competitive" and/or that is "fair" as indicated by a Shapley Value analysis.* Under either effectively competitive rates or rates that result in the parties' receiving their Shapley Values, the Services would earn positive economic profits (i.e., the Services' earnings would be materially more than the level needed to allow them to survive as consumer services). The Working Proposal, however, determines royalty rates that are designed to yield the Services only their survival revenues. By contrast, it is designed to yield musical works copyright owners their Shapley Value. I am unaware of *any* economic notion of fairness that would indicate that this approach corresponds to a "fair income" for the Services or of any sound economic argument that this approach produces rates that reflect the relative contributions of the Services and musical works copyright owners.

- *Even if it were correct, the Working Proposal could determine the appropriate headline royalty rate only if there were no minimums, such as those based on the TCC prong, or floors.* I understand the Working Proposal as attempting to identify an appropriate average *effective* royalty rate as a percentage of the Services' revenues. It is a fact of arithmetic that, under any structure that, in addition to a revenue prong, has meaningful floors or minimums (e.g., a TCC prong that sometimes comes into effect), the *actual* *effective* rate is *greater* than the *headline,* percent-of-revenue rate. For example, if the Judges adopted a royalty structure having both a TCC prong and a revenue prong, the effective rate would be higher than the headline, percent-of-revenue rate whenever the TCC prong came into play. This fact implies that, if the Judges were to adopt a structure with alternate prongs to a headline rate, it would be necessary to set the headline rate *below* the effective rate indicated by the Working Proposal in order to ensure that the resulting combination of the headline rate and alternate rate prongs yielded an actual effective royalty rate equal to the Working Proposal's effective royalty rate.

- *By its own logic, the Working Proposal substantially risks leaving some or all of the Services with less than their survival revenues*. As the Judges have stated, the major record companies ("Majors") have substantial complementary oligopoly power. Economic logic indicates that, in equilibrium, complementary oligopolists will choose royalty rates that generate greater risks of service extinction and industry disruption than would even a monopolist. If the Working Proposal is correct that the Majors have pushed the Services' revenues net of royalties down to what the Majors believe are survival levels, and the Judges set a musical works royalty rate higher than the level anticipated by the Majors during license negotiations, then the resulting total royalties will leave some or all of the Services with less than survival revenue even though those services generated net economic surplus overall. Such musical works royalty rates would fail to satisfy any of the Section 801(b)(1) objectives.

4. The remainder of my written supplemental remand testimony explains in greater depth these conclusions and the facts and analyses that led me to reach them.

II. THE WORKING PROPOSAL IS BASED ON AN INVALID FOUNDATIONAL ASSUMPTION REGARDING THE SEE-SAW RATE.

5. The Working Proposal assumes a see-saw effect under which the record companies will adjust the sound recording royalty rate in response to a change in the musical works royalty to keep the Services' revenues minus the sum of the two royalty rates equal to the Services' "survival" rate.[3] As a matter of arithmetic, this assumption implies that any increase in the

[3] *December 9 Order*, p. 3.

musical works royalty must be offset by a one-for-one reduction in the sound recording royalty (i.e., an assumed see-saw rate of 100 percent).

6. This assumption is invalid. Not even Professor Watt claimed that there would be a 100-percent see-saw effect, and his analysis is unreliable and overstates the size of the see-saw effect for reasons I have explained in previous testimony.[4] Although economics indicates that a see-saw effect may arise in theory, there is no reliable empirical evidence in the record suggesting that the see-saw effect here is [redacted].[5] [redacted], so it would be surprising to observe any see-saw effect at all—let alone a 100-percent rate.[6] Moreover, I am unaware of any record evidence indicating that sound recording royalty rates were lowered in anticipation of higher musical works royalty rates during the statutory period, [redacted].[7] Further, economic logic strongly indicates that the Services do not believe the see-saw effect is anywhere near 100 percent. Specifically, if the see-saw effect were near 100 percent, the Services would have no financial incentives to expend substantial time and resources in the present proceeding: if (counterfactually) the see-saw effect were near 100 percent, the outcome of the proceeding would have little or no effect on the Services' total royalty payments.

4 Written Direct Remand Testimony of Michael L. Katz, April 1, 2021 (hereinafter *Katz WDRT*), § III.A.

5 *Katz WDRT,* § III.A.2.

6 [redacted]

7 See *Katz WDRT*, § III.A.2 and testimony cited therein.

III. BECAUSE THE SEE-SAW RATE IS LESS THAN 100 PERCENT, THE MUSICAL WORKS ROYALTY RATE WILL AFFECT THE SERVICES' INCOMES AND RETURNS.

7. Given that the see-saw rate is well below 100 percent, a material change in the musical works royalty rate will result in a material change in the total royalty rate paid by the Services to sound recording and musical works copyright owners. Hence, the Judges' choice of musical works royalty rate will have a strong effect on the income and returns earned by the Services. This fact has important implications for whether the Working Proposal is capable of generating musical works royalty rates that satisfy the Section 801(b)(1) objectives. For example, if the musical works royalty is set too high, it will disrupt the industry. And, as I discuss in Section 0 below, the Working Proposal creates strong reasons for concern in this regard.

8. The rate also has implications for fairness and whether the royalty reflects relative contributions. As the Judges have recognized, the Majors constitute a complementary oligopoly, which leads to sound recording royalties well in excess of effectively competitive levels.[8] As a matter of arithmetic, if in practice sound recording copyright owners receive more than their Shapley payoffs, then the Services and/or musical works copyright owners must necessarily receive *less* than their respective Shapley payoffs. Rather than take a balanced approach with respect to this problem, the Working Proposal does not attempt to provide the Services with anything more than their survival level of revenues.[9] The proposed approach thus inequitably places as much of the burden of the record companies' complementary oligopoly market power on the Services as is possible and privileges musical works copyright owners—to which the Working Proposal attempts to provide their Shapley Value[10]—at the Services' expense.

9. Given that the actual see-saw rate is far below 100 percent, placing the burden entirely on the Services in this way is a choice made by the Judges—it is not the inevitable result of record-company market power. Neither the relative contributions of the musical works copyright

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8 Phonorecords III, In re Determination of Royalty Rates and Terms for Making and Distributing Phonorecords, Docket No. 16-CRB-0003-PR (2018-2022), Final Determination (hereinafter *Determination*), pp. 71-72.

9 *December 9 Order*, p. 3.

10 *December 9 Order*, pp. 2-3.

owners and the Services, nor any economic notion of fairness of which I am aware, would support this allocation of the burden of the Majors' complementary oligopoly power.

IV. UNLESS SUBSTANTIALLY MODIFIED, THE WORKING PROPOSAL CANNOT DETERMINE A RATE THAT IS "EFFECTIVELY COMPETITIVE" AND/OR THAT IS "FAIR" AS INDICATED BY A SHAPLEY VALUE ANALYSIS.

10. The logic of the Working Proposal implies that it generates royalty rates that hold the Services to their survival levels of revenues. By contrast, under either effective competition or a Shapley Value analysis, the Services would earn positive levels of economic surplus (i.e., would retain revenues greater than their survival levels). Therefore, the Working Proposal cannot determine an "effectively competitive" royalty rate or a royalty that would accord with a properly constructed Shapley Value analysis.

11. A leading economic interpretation of a fair return to a copyright owner and a fair income to a copyright user are the returns and incomes that would arise in an effectively competitive market in the absence of a mandatory licensing requirement.[11] Under effective competition, prices are driven towards costs and buyers enjoy surplus in equilibrium. An outcome under which buyers (here the Services) are pushed down to their survival level is more consistent with perfectly discriminating monopoly than with any level of competition.

12. Under any Shapley Value analysis, the Services would earn more than their survival revenues as long as musical works copyright owners and sound recording copyright owners can generate greater economic value by working with one more interactive service than without any interactive service.[12] This condition clearly is satisfied in the present instance: as documented by my earlier testimony, streaming is widely credited with having saved the music industry

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11 See *Katz WDT*, § II.B, for a discussion of economic conceptions of fairness.

12 To see that this is the case, suppose that interactive services create value. Then, under the Shapley Value, a service would earn its positive marginal contribution to overall surplus whenever it was the first service in the Shapley ordering and arrived after the record companies and a critical mass of musical works copyright owners. A service might also earn positive surplus in other positions in the Shapley ordering, but consideration of this one is enough to establish that the service would earn positive surplus.

commercially.[13] And the Majority observed in the *Determination* that the fact that record companies bargain with the Services demonstrates that streaming generates economic value.[14] Thus, the proposed methodology is not fair under the Shapley conception of fairness.[15]

13. More broadly, I am unaware of any economic notion of fairness that would find that allowing the Services to earn only their survival revenue level would correspond to a "fair income" or would reflect the Services' "creative contribution, technological contribution, capital investment, cost, risk, and contribution to the opening of new markets for creative expression and media for their communication."[16]

V. EVEN IF IT WERE CORRECT, THE WORKING PROPOSAL COULD DETERMINE AN APPROPRIATE HEADLINE ROYALTY RATE ONLY IF THERE WERE NO OTHER PRONGS.

14. I understand the Working Proposal as attempting to identify an appropriate average *effective* royalty rate as a percentage of the Services' revenues. Under any structure that has minimums (such as a TCC prong) or floors, a service's *actual effective* rate will be *greater* than the *headline* rate of the revenue prong if the minimums or floors ever determine the royalties actually paid.[17] This relationship holds as a matter of arithmetic because the elements of the rate structure other than the percent-of-revenue prong come into play precisely when they generate royalties greater than those that would result from applying the headline rate to the relevant service's revenues.

15. This mathematical fact has two immediate implications:

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13 See, e.g., *Katz WDT*, § III.D, and *Katz WDRT*, § VI.B.

14 *Determination*, p. 74.

15 For a discussion of why the vacated rate structure did not promote fairness, see *Katz WDRT*, § V.

16 17 U.S.C. §801(b)(1)(C).

17 To see this point algebraically, consider a royalty scheme with a greater-of structure. Suppose that the headline rate h applies to services having revenues of R_1 and that an alternative prong applies to services having revenues of R_2. This alternative prong generates royalties of A. Under the greater-of structure, the alternative prong applies if and only if $A > hR_2$. The average effective royalty rate is $\frac{hR_1+A}{R_1+R_2} > \frac{hR_1+hR_2}{R_1+R_2} = h$.

1. Under any rate structure in which an alternative prong in a greater-of structure has effect, the headline rate must be set *lower* than the Working Proposal effective rate in order to ensure that the actual effective rate is equal to the Working Proposal effective rate.[18]

2. If the Judges set the headline rate equal to the Working Proposal rate, then the actual effective rate will be equal to the Working Proposal effective rate only if *no provision* other than application of the headline rate to service revenues determines the royalty.

16. *Inter alia*, the Judges asked several questions regarding the compatibility of the Working Proposal with various rate structures, including ones that eliminate the TCC prong, rely on a single, percent-of-revenue prong, or have the *Phonorecords II* rate structure.[19] If, for example, the Judges retain the *Phonorecords II* rate structure (including the same TCC rate prong and Mechanical Floors), it would be inappropriate to replace the 10.5% headline rate in that benchmark with the rate produced by the Working Proposal unless a downward adjustment was made to the headline rate to account for the full set of components of the rate structure that might bind instead and drive up the effective rate. More generally, given a see-saw effect of less than 100 percent, if the Working Proposal is correct that the effective rate pushes the Services to earning their survival revenue level, then using that effective rate as the headline statutory rate and failing to account for the presence of binding floors and minimums would push Services' revenues below their survival levels.

VI. BY ITS OWN LOGIC, THE WORKING PROPOSAL SUBSTANTIALLY RISKS LEAVING SOME OR ALL OF THE SERVICES WITH LESS THAN THEIR SURVIVAL REVENUES.

17. The Working Proposal presents a highly unrealistic view of the licensing negotiations between the Majors and the Services. This view implicitly assumes that: (a) there is a single

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18 More precisely, an adjustment must be made in order for the *average* actual effective rate to equal the desired effective rate. Given the heterogenous business models of the Services and their products, there generally is no single adjustment that can ensure that each and every interactive service pays the intended effective royalty rate. This is one reason why using the *Phonorecords II* rate structure and rates (including a headline rate of 10.5%) as a benchmark is a superior approach to rate setting than is trying to combine the Working Proposal effective rate (even if adjusted) with the *Phonorecords II* rate structure.

19 *January 6 Order*, pp. 12-14.

survival rate; (b) that rate is perfectly known to all of the Majors; and (c) the Majors behave as if they are a unitary decision maker, rather than as separate sellers in complementary oligopoly. There is no support for these assumptions in the record, and replacing them with more realistic assumptions leads to conclusions dramatically different than those underlying the Working Proposal.

18. With regard to assumption (a), the Services are heterogenous in terms of a range of factors, including their scale, revenue models, and relationships to complementary products offered by the parent firms. These differences strongly suggest that different interactive streaming services have different survival revenue rates.

19. Turning to assumption (b), the Working Proposal fails to account for at least two important types of uncertainty: (1) the Majors have imperfect information about the Services' varying financial conditions and objectives, and (2) the Judges have highly imperfect information about the Majors' beliefs regarding the financial conditions and objectives of the Services. The first type of uncertainty implies that a record company does not face a stark 0-1 decision when setting it royalty rates. Instead, it faces a more continuous decision: the greater are its royalty demands, the more likely those demands will push a service below its survival revenue rate. This effect is an extension of the standard tradeoff that a firm with market power faces when choosing its price: a higher price earns greater revenue on the sales that continue to be made but suppresses unit sales and, thus, revenues.

20. This extension is important because it carries over to the Majors' substantial complementary oligopoly power. As the Judges have recognized, that power leads to sound recording royalty rates even higher than a monopolist (or unitary decision maker) would charge. Logically, that same complementary oligopoly power leads the Majors to demand royalties that create a substantial risk of disrupting the music streaming industry as well as reducing the availability of creative works to the public.

21. To see why, first consider a monopoly record company. The monopolist would choose its sound recording royalty rate recognizing that a higher royalty rate would increase the revenues earned on those sales that continue to be made. But the firm would also recognize the risk that a higher royalty would reduce its expected sales because the Services could cut back

their output or even exit the industry as a result of the higher royalties. As a monopolist, this firm would consider the industry-wide effects.

22. Now, consider a single firm that is part of a complementary oligopoly. When that firm raises its royalty rate, it gets the full benefit of the higher rates on any sales that it continues to make. But if the firm's higher royalty rate triggers a reduction in the Services' output and/or induces some or all of the Services to exit the industry, much of the costs of those effects are borne by *other* record companies in the form of reduced licensing revenues, and these costs are ignored by the firm making its royalty choice. Hence, in equilibrium, complementary oligopolists will choose royalty rates that generate greater risks of service extinction and industry disruption than would even a monopolist.

23. Now, consider the central implication of this fact combined with the fact that the see-saw effect is below 100 percent: there is a substantial risk that setting the musical works royalty rate too high will trigger industry disruption or even exit. This is particularly problematic given that the Judges' imperfect information regarding the Majors' beliefs and thought processes. If the Working Proposal is correct that the Majors have pushed the Services to their survival levels, and the Judges set a musical works royalty rate higher than the whatever level may have been anticipated by the Majors during license negotiations, then the resulting total royalties will leave some or all of the Services with less than survival revenue even though those services generated net economic surplus overall.

24. Such musical works royalty rates would fail to satisfy any of the Section 801(b)(1) objectives. Because interactive services firms have incurred sunk costs and the *Phonorecords III* rates are largely being set retroactively, it might be possible to push some or all services below their survival rates without inducing exit. However, whether or not that is the case, it is impossible to see how such rates could be considered to be reasonable, to generate fair income for the Services, or to reflect the relative contributions of the Services and musical works copyright owners. Moreover, even if such rates did not immediately induce exit or reduce the availability of creative works to the public, these rates would risk creating future disruption and failure to maximize availability because the Services would be in poorer financial conditions going forward. This is especially likely to be true for independent and smaller interactive services. In addition, economics clearly identifies harm to future investment incentives when a

regulatory or judicial body retroactively imposes rates that do not allow an adequate return on investment—firms may reduce future investments out of concern that those investments will receive similar treatment.[20]

VII. USING THE 2012 SETTLEMENT AS A BENCHMARK REMAINS THE BEST APPROACH TO RATE SETTING HERE.

25. For the reasons summarized above, as well as others discussed in my earlier testimony regarding the underlying Shapley Value analysis and the treatment of the Majors' complementary oligopoly power, unless the Working Proposal is substantially modified, it is incapable of determining a rate structure that satisfies the Section 801(b)(1) objectives. By contrast, the rate and rate structure approach of the 2012 Settlement provides an economically sound benchmark on which to base the statutory rates for the 2018-2022 period.[21]

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20 It should also be noted that, if one adopted the view that the Section 801(b)(1) factors regarding disruption and availability are irrelevant for retroactive rate setting, then it would also follow that setting the retroactive portion of the *Phonorecords III* musical works royalties equal to zero would neither be disruptive nor harm availability.

21 *Katz WDT*, §§ IV and V; *Katz WDRT*, § VIII.

APPENDIX: MATERIALS RELIED UPON

Determinations and Orders

	Date	Bates Number(s)
Phonorecords III, *In re Determination of Royalty Rates and Terms for Making and Distributing Phonorecords*, Docket No. 16-CRB-0003-PR (2018-2022).	Feb. 2019	--
Phonorecords III, Notice and *Sua Sponte* Order Directing the Parties to Provide Additional Materials	Dec. 2021	--
Phonorecords III, Order Granting in Part and Denying in Part Copyright Owners' Motion for Reconsideration or, in the Alternative, Clarification	Jan. 2022	--

Written Testimony

	Date	Bates Number(s)
Phonorecords III, Written Direct Testimony of Michael L. Katz.	Nov. 2016	--
Phonorecords III, Written Direct Remand Testimony of Michael L. Katz.	April 2021	--

License Agreements

	Date	Bates Number(s)
[redacted]	[redacted]	--
[redacted]	[redacted]	--
[redacted]	[redacted]	--
[redacted]	[redacted]	--
[redacted]	[redacted]	--
[redacted]	[redacted]	PAN_PRIII_Remand_00020148
[redacted]	[redacted]	--

Other

	Date	Bates Number(s)
17 U.S.C. §801 - Copyright Royalty Judges; Appointment and Functions.	--	--

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In re **DETERMINATION OF RATES AND TERMS FOR MAKING AND DISTRIBUTING PHONORECORDS (Phonorecords III)**	**Docket No. 16-CRB-0003-PR (2018-2022) (Remand)**

DECLARATION OF MICHAEL L. KATZ

I, Michael L. Katz, declare under penalty of perjury that the statements contained in my Written Supplemental Remand Testimony in the above-captioned proceeding are true and correct to the best of my knowledge, information, and belief.

Executed this 29th day of January, 2022 in New York City, NY.

Michael L. Katz

Michael L. Katz

Proof of Delivery

I hereby certify that on Monday, January 24, 2022, I provided a true and correct copy of the Katz Written Supplemental Remand Testimony (Public) to the following:

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Google LLC, represented by David P Mattern, served via ESERVICE at dmattern@kslaw.com

National Music Publishers' Association (NMPA) et al, represented by Benjamin Semel, served via ESERVICE at Bsemel@pryorcashman.com

Signed: /s/ Todd Larson